

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P389686

Luminaire Tested: **24CZ2-30VHE-S-UNV-L930-CD1-SWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P389686
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-S-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2577.9 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

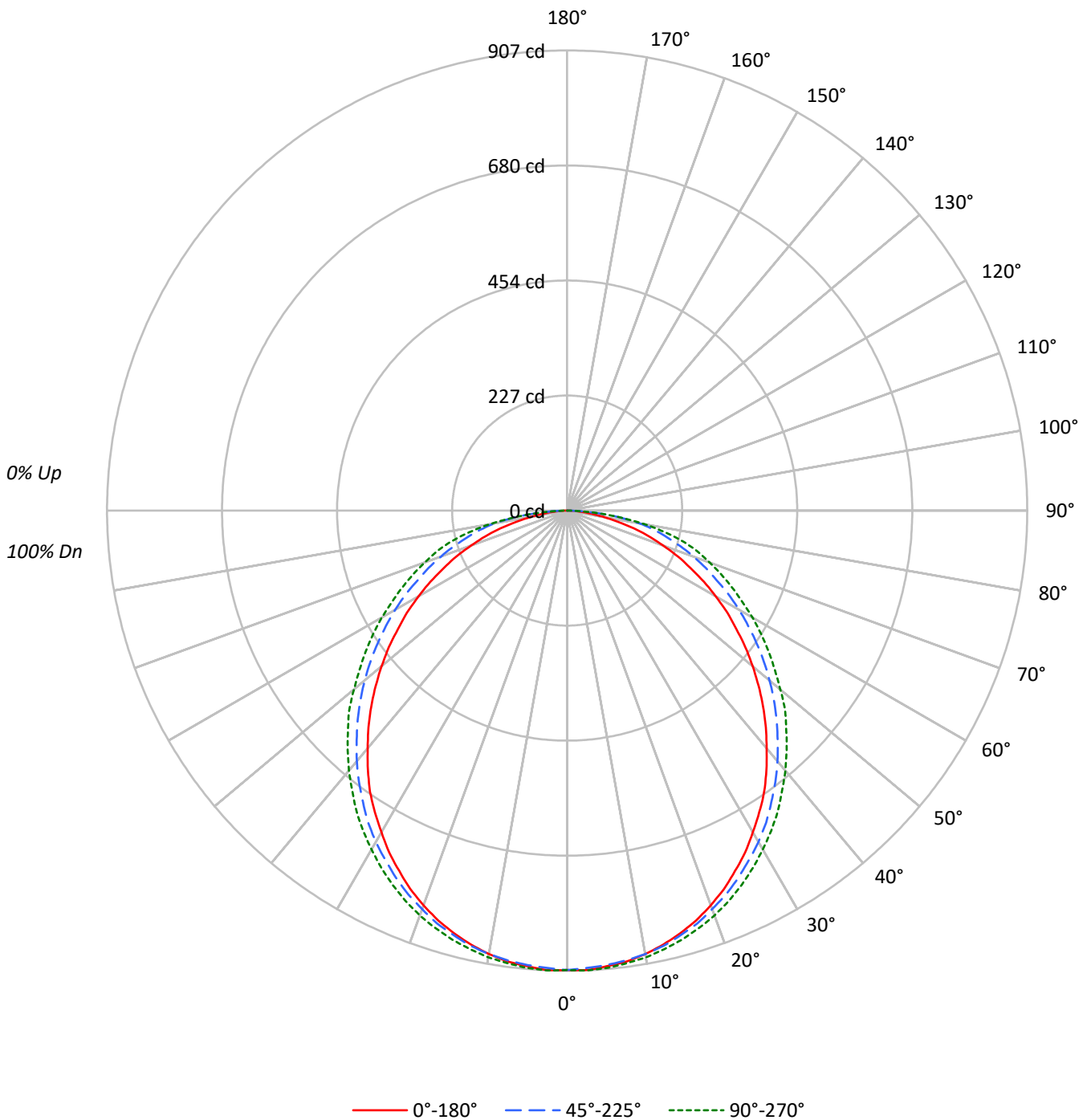
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1218	1218	1218
5°	1218	1214	1222
10°	1213	1213	1222
15°	1201	1207	1219
20°	1185	1197	1216
25°	1163	1185	1208
30°	1137	1172	1198
35°	1112	1153	1189
40°	1074	1133	1175
45°	1039	1111	1162
50°	999	1090	1148
55°	955	1070	1137
60°	910	1053	1135
65°	853	1035	1142
70°	789	1041	1173
75°	706	1060	1239
80°	571	1123	1212
85°	429	986	960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	3.3
10°-20°	245.0	9.5
20°-30°	368.3	14.3
30°-40°	438.7	17.0
40°-50°	448.9	17.4
50°-60°	404.2	15.7
60°-70°	317.4	12.3
70°-80°	206.0	8.0
80°-90°	63.7	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	699.0	27.1
0°-40°	1137.6	44.1
0°-60°	1990.8	77.2
0°-90°	2577.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2577.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	902	903	899	904	905	86
15°	862	865	866	874	875	243
25°	784	790	798	812	814	361
35°	677	685	702	719	724	422
45°	546	559	584	606	611	421
55°	407	425	456	480	485	365
65°	268	288	325	352	359	267
75°	136	162	204	232	238	144
85°	28	52	64	62	62	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	905.6	905.6	905.6	905.6	905.6
2.5°	906.5	906.5	902.4	906.5	907.3
5°	901.5	903.2	899.1	904.0	904.8
7.5°	896.6	896.6	894.2	899.1	899.9
10°	887.6	888.4	887.6	893.4	894.2
12.5°	876.2	877.8	878.6	884.3	885.2
15°	862.2	864.7	866.3	873.7	875.3
17.5°	846.7	849.1	853.2	861.4	863.1
20°	827.8	831.1	836.0	846.7	849.1
22.5°	807.4	810.6	818.8	828.7	832.8
25°	783.6	790.2	798.4	811.5	813.9
27.5°	759.9	765.6	776.3	790.2	793.5
30°	732.0	741.0	754.1	768.1	771.3
32.5°	705.0	714.0	729.6	744.3	748.4
35°	677.2	685.4	701.7	718.9	723.9
37.5°	645.2	655.9	673.9	691.1	696.0
40°	611.7	624.8	645.2	663.3	669.0
42.5°	579.7	593.7	614.1	633.8	640.3
45°	546.2	559.3	583.8	605.9	610.9
47.5°	511.8	526.5	552.7	574.8	583.0
50°	477.4	492.9	520.8	543.7	548.6
52.5°	443.0	459.4	488.8	513.4	515.9
55°	407.0	425.0	456.1	479.8	484.8
57.5°	374.2	389.8	423.3	447.9	453.6
60°	338.2	355.4	391.4	414.3	421.7
62.5°	303.8	321.8	359.5	382.4	388.9
65°	267.8	288.2	325.1	352.1	358.7
67.5°	236.6	256.3	295.6	321.8	328.4
70°	200.6	222.7	264.5	291.5	298.1
72.5°	169.5	192.4	234.2	260.4	270.2
75°	135.9	162.1	203.9	231.7	238.3
77.5°	103.2	133.5	176.0	197.3	197.3
80°	73.7	105.6	144.9	154.8	156.4
82.5°	48.3	79.4	107.3	106.4	106.4
85°	27.8	51.6	63.9	62.2	62.2
87.5°	10.6	21.3	22.9	22.9	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)